

IN THE CLAIMS

The following is a complete listing of the claims, and replaces all earlier version and listings.

Claim 1. (currently amended): A multifunction apparatus, adapted such that any device of a plurality of types of devices can be selectively attached thereto, for executing control on an attached device, wherein the control differs depending upon the type of device attached, said apparatus comprising:

transmitting means for transmitting a timing signal to the attached device for acquiring identifying information stored in the attached device;

receiving means for receiving the identifying information, represented as digital information comprising a plurality of bits of information, including specific data indicating the type of the attached device and characteristic data of the attached device that has been transmitted serially from the attached device in accordance with the timing signal;

determination means for determining, ~~with regard to whether the attached device is a device of a specific type, whether values of respective based on~~ bits of information contained in the specific data ~~correspond to respective ones of a predetermined bit pattern, the specific data comprising two or more bits of information transmitted in succession including different values, and the number of bits of information being less than that of the plurality of bits of information; and~~

control means for exercising control on the attached device, upon construing that the attached device is of the specific type ~~in a case where said determination means determines that the values of the respective bits of information contained in the specific~~

data correspond to respective ones of the predetermined bit pattern based on the determination made by said determination means,

wherein the plurality of types of devices include a scanner unit for reading a document image and a printhead cartridge for use in outputting an image to a printing medium, and

wherein said determination means determines that the attached device is the scanner unit, if all bits of information in the specific data correspond to zero, and instead determines that the attached device is the printhead cartridge, if values of successive bits in the specific data correspond to alternating 1 and 0, and

wherein otherwise, said determination means determines that the attached device has not been electrically connected correctly.

Claims 2. - 6. (canceled).

Claim 7. (currently amended): An apparatus according to claim ~~[[6]]~~ 1, wherein the printhead cartridge includes an ink-jet printhead for printing by discharging ink, and an ink tank containing ink supplied to the printhead.

Claim 8.(currently amended): An apparatus according to claim 7, wherein the printhead is of a type that discharges ink by utilizing thermal energy and that has a thermal energy converter for generating thermal energy applied to the ink.

Claim 9. (currently amended): A method of identifying a device that has been attached to a multifunction apparatus, adapted such that any device of a plurality of

types of devices can be selectively attached thereto, for executing control on an attached device, wherein the control differs depending upon the type of device attached, said method comprising the steps of:

transmitting a timing signal to the attached device for acquiring identifying information stored in an attached device;

receiving the identifying information, represented as digital information comprising a plurality of bits of information, including specific data indicating the type of the attached device and characteristic data of the attached device that has been transmitted serially from the attached device in accordance with the timing signal;

determining, ~~with regard to whether the attached device is~~ a device of a specific type, ~~whether values of respective~~ based on bits of information contained in the specific data ~~correspond to respective ones of a predetermined bit pattern, the specific data comprising two or more bits of information transmitted in succession including different values, and the number of bits of information being less than that of the plurality of bits of information; and~~

exercising control on the attached device, upon construing that the attached device is of the specific type ~~in a case where it has been determined in said determining that the values of the respective bits of information contained in the specific data correspond to respective ones of the predetermined bit pattern~~ based on the determination made in said determining step,

wherein the plurality of types of devices include a scanner unit for reading a document image and a printhead cartridge for use in outputting an image to a printing medium, and

wherein said determining step includes determining that the attached device is the scanner unit, if all bits of information in the specific data correspond to zero, and instead determining that the attached device is the printhead cartridge, if values of successive bits in the specific data correspond to alternating 1 and 0, and determining, otherwise, that the attached device has not been electrically connected correctly.

Claims 10. - 14. (canceled).

Claim 15.(currently amended): A computer program product stored in a computer-readable medium and executed by a multifunction apparatus, adapted such that any device of a plurality of types of devices can be selectively attached thereto, for executing control on an attached device, wherein the control differs depending upon the type of device attached, said computer program product having program code comprising:

code for transmitting a timing signal to the attached device for acquiring identifying information stored in an attached device;

code for receiving the identifying information, represented as digital information comprising a plurality of bits of information, including specific data indicating the type of the attached device and characteristic data of the attached device that has been sent serially from the attached device in accordance with the timing signal;

code for determining, ~~with regard to~~ whether the attached device is a device of a specific type, ~~whether values of respective~~ based on bits of information contained in the specific data ~~correspond to respective ones of a predetermined bit pattern, the specific data comprising two or more bits of information transmitted in succession including~~

~~different values, and the number of bits of information being less than that of the plurality of bits of information; and~~

~~code for exercising control on the attached device, upon construing that the attached device is of the specific type in a case where it has been determined in said determining that the values of the respective bits of information contained in the specific data correspond to respective ones of the predetermined bit pattern based on the determination made in said determining step.~~

wherein the plurality of types of devices include a scanner unit for reading a document image and a printhead cartridge for use in outputting an image to a printing medium, and

wherein said determining step includes determining that the attached device is the scanner unit, if all bits of information in the specific data correspond to zero, and instead determining that the attached device is the printhead cartridge, if values of successive bits in the specific data correspond to alternating 1 and 0, and determining, otherwise, that the attached device has not been electrically connected correctly.

Claim 16. (currently amended): A computer-readable storage medium storing a computer program executed by a multifunction apparatus, adapted such that any device of a plurality of types of devices can be selectively attached thereto, for executing control on an attached device that differs depending upon the type of device attached, said computer program comprising program code comprising:

code for transmitting a timing signal to the attached device for acquiring identifying information stored in an attached device;

code for receiving the identifying information, represented as digital information comprising a plurality of bits of information, including specific data indicating the type of the attached device and characteristic data of the attached device that has been sent serially from the attached device in accordance with the timing signal;

code for determining, ~~with regard to~~ whether the attached device is a device of a specific type, ~~whether values of respective~~ based on bits of information contained in the specific data ~~correspond to respective ones of a predetermined bit pattern, the specific data comprising two or more bits of information transmitted in succession including different values, and the number of bits of information being less than that of the plurality of bits of information; and~~

code for exercising control on the attached device, upon construing that the attached device is of the specific type ~~in a case where it has been determined in said determining that the values of the respective bits of information contained in the specific data correspond to respective ones of the predetermined bit pattern~~ based on the determination made in said determining step,

wherein the plurality of types of devices include a scanner unit for reading a document image and a printhead cartridge for use in outputting an image to a printing medium, and

wherein said determining step includes determining that the attached device is the scanner unit, if all bits of information in the specific data correspond to zero, and instead determining that the attached device is the printhead cartridge, if values of successive bits in the specific data correspond to alternating 1 and 0, and determining, otherwise, that the attached device has not been electrically connected correctly.